



FUJITSU RFID Integrated Label Version 1.03

User Guide

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1 Description

The FUJITSU RFID Integrated Label is an advanced RFID Label specifically designed for part marking of metal and non-metal aircraft parts. It is available in three form factors (Large, Medium and Small) and two memory capacity (1-Kilobyte and 8-Kilobyte). By combining three technologies (printed label, barcode and RFID), it offers great versatility for a variety of applications related to part maintenance or part tracking.

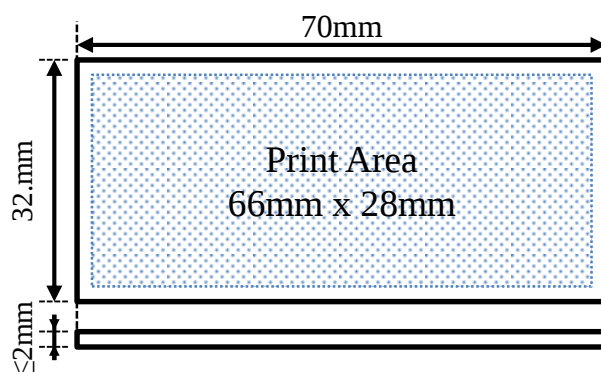
supports the following standards:

- ATA Spec 2000 Chapter 9
- EPCglobal Class 1 Generation 2 ver1.2
- SAE AS5678
- ISO18000-6

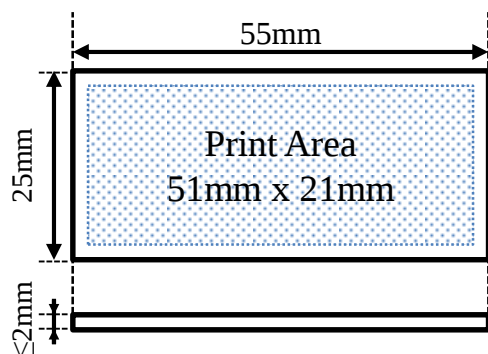


2 Features

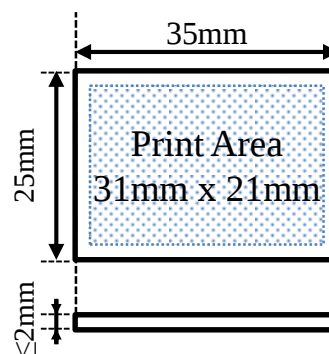
		Large Label	Medium Label	Small Label
Width		70mm	55mm	35mm
Height		32mm	25mm	25mm
Thickness w/o label		≤2mm	≤2mm	≤2mm
Weight w/o label		≤5g (0.011lb)	≤5g (0.011lb)	≤5g (0.011lb)
Memory	EPC	496 bit (Except CRC, PC)		
	TID	208 bit (E2,810,042)		
	Reserve	64 bit		
	User	8192 bytes or 1024 bytes		
	write cycles	< 100,000		
Operating Frequency		860MHz to 960MHz		
Operating temperature		-40 °C to 85 °C (-40 °F to 185 °F)		
Survival temperature		-55 °C to 150 °C (-58 °F to 302 °F)		



Large label



Medium label



Small label

3 AFFIXING THE LABEL TO A PART

Fujitsu recommended steps:

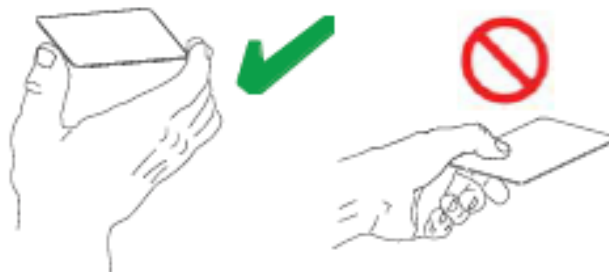
- (1) Remove oil, water and dust from the surface to be affixed.
- (2) Bond with pressure utilizing some tool including a press or roller.
- (3) If room temperature is below 10 °C (50 °F), the surface should be warmed up to more than 20 °C (68 °F).
- (4) If the receiving surface is curved or is not perfectly smooth, adhesiveness could be improved by adding glue (RTV etc.).
- (5) Do not push the center of label too hard. It might damage the RFID chip inserted at the center.
- (6) Please confirm that the attached Label is readable by a RFID reader.

Caution

The RFID chip is located around the area shown below in red. Please refrain from pushing this area when attaching the Label (as it could break the antenna connection or the chip itself).



Do not touch the printing surface as this can reduce print quality. The surface of label must remain clean and dust free.



4 Miscellaneous

- (1) Do not store the product in the following kinds of locations, doing so may cause the product to malfunction or fail.
 - Places where the product will be exposed to direct sunlight.
 - Places near heating equipment or naked flames.
 - Do not place the product in high pressure vessels, or cooking devices such as microwave ovens. Doing so could cause heat, smoke, fire or faults.
- (2) Do not subject the product to excessive mechanical stress. Doing so may cause the product to malfunction or fail.
 - Do not allow the product to rub against hard objects before printing.
 - Do not drop the product, or place heavy objects on it.
 - Do not apply stress, such as stretching or twisting.
 - Do not perform secondary processing, such as cutting the product or drilling holes in the product.
- (3) Labels are made of the materials listed below.
 - Silicone rubber
 - PET (Polyethylene terephthalate)
 - Aluminum
 - Acrylic adhesive
- (4) Storage condition before printing listed below
 - Keep the Labels in a well-ventilated, cool, dark place, away from direct sunlight.
 - Storage temperature is 0 °C to 35 °C (32 °F to 95 °F).
 - Storage humidity is 20% to 80%, No condensation.
- (5) Print Condition listed below
 - Storage temperature is 0 °C to 35 °C (32 °F to 95 °F).
 - Storage humidity is 20% to 80%, No condensation.

Please follow the “Waste Disposal and Public Cleansing Law” and/or local regulations when you dispose labels.

5 Warranty and Defect

- Conditions of warranty

- The warranty periods of RFID Integrated Label are 36 months.
- An RFID tag is considered defective if it fails the data validation test. This test is available through the Fujitsu RFID data management software on Zebra MC9190Z RFID scanner.
- Any defects that occurred after affixing RFID Integrated Label are not subject to warranty.
- Double-sided adhesive tapes of RFID Integrated Label are not covered under warranty even in the warranty period and the state before affixing.

Fujitsu makes no other warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose. This limited warranty does not cover damage resulting from the use or inability to use this tag due to misuse, workmanship in application or storage not in accordance with Fujitsu procedures.

- LIMITED REMEDIES AND LIABILITY

If the tag proves to be defective within the warranty period stated above, the exclusive remedy, at Fujitsu's discretion, shall be to either replace to the defective material or refund the purchase price.

Fujitsu shall not be otherwise be liable for loss or damages, whether direct or indirect, special, incidental, or consequential, regardless of the legal theory asserted, including negligence, warranty, or strict liability.